

## DEVELOP National Program

This is a great opportunity for individuals who are interested in practical applications of remote sensing and GIS, specifically in the field of Earth Science. DEVELOP projects focus on addressing local and international community concerns while utilizing NASA's Earth observations. Participants work in teams, with guidance from NASA and partner science advisors, to demonstrate to partner organizations how NASA remote sensing imagery can be used in water resources, disaster management, ecological forecasting, and other applications to address environmental community concerns. DEVELOP's projects are interdisciplinary in nature, so applications are welcome from all academic backgrounds.

Details about the internship and how to apply can be found at <http://develop.larc.nasa.gov/>. The fall 2016 online application is open from May 23 – July 1, 2016. The fall 2016 internship dates are September 12, 2016 – November 18, 2016. Both paid and volunteer positions are offered. Paid positions are funded as consultants using a rate determined by application type, education level, and location. Spring and summer internships are also available, and the term dates and application windows are updated on the Apply page of the DEVELOP website.

Applicants are free to apply to any DEVELOP node, with the exception of some restrictions for international students. Applicants are given the opportunity to select their 1st and 2nd node choices. There are two nodes located in California:

- 1) The Jet Propulsion Laboratory in Pasadena near Los Angeles.
- 2) Ames Research Center in Mountain View near San Francisco.

Applicants must have excellent communication and writing skills, and be able to work in a fast-paced environment. Responsibilities will include: literature review, data processing and analysis, composing of deliverables including a technical paper, presentation, and video. Previous GIS or remote sensing knowledge, while beneficial, are not required for acceptance. If selected, participants must be able to commit 10-20 hours per week.

Please feel free to contact [NASA-DL-DEVELOP@mail.nasa.gov](mailto:NASA-DL-DEVELOP@mail.nasa.gov) with any questions.



# DEVELOP YOUR CAREER

with NASA's Applied Sciences' Capacity Building  
**DEVELOP National Program**



Enhance technical and professional skills



Introduction to NASA Earth observation capabilities



Gain research and scientific communication experience

## What is DEVELOP?

DEVELOP addresses environmental and public policy issues through interdisciplinary research projects that apply the lens of NASA Earth observations to community concerns around the globe. Bridging the gap between NASA Earth Science and society, DEVELOP builds capacity in both participants and partner organizations to better prepare them to address the challenges that face our society and future generations.

Teams of DEVELOP participants partner with decision makers to conduct rapid feasibility projects that highlight relevant applications of Earth observing missions, cultivate advanced skills, and increase understanding of NASA Earth science data and technology.

## About Projects

DEVELOP projects apply Earth observations and remote-sensing technology to application areas that highlight NASA Earth observation capabilities relative to environmental issues for enhanced policy and decision making. These areas include:



Disasters



Water Resources



Ecological Forecasting



Agriculture



Health & Air Quality



Oceans



Climate



Weather



Energy



Cross Cutting

## How to Apply

Anyone 18 and over, who is interested in pursuing experience in the Earth sciences and remote sensing, is welcome to apply. This includes currently enrolled students, recent college graduates, early and transitioning career professionals, and current and former U.S. Military service members. Applicants must have a minimum 3.0 GPA on a 4.0 scale at their current or last institution of higher learning and the ability to transport themselves to and from the DEVELOP location. Apply online at <http://develop.larc.nasa.gov/apply.php>.

## Fall 2016 Applications

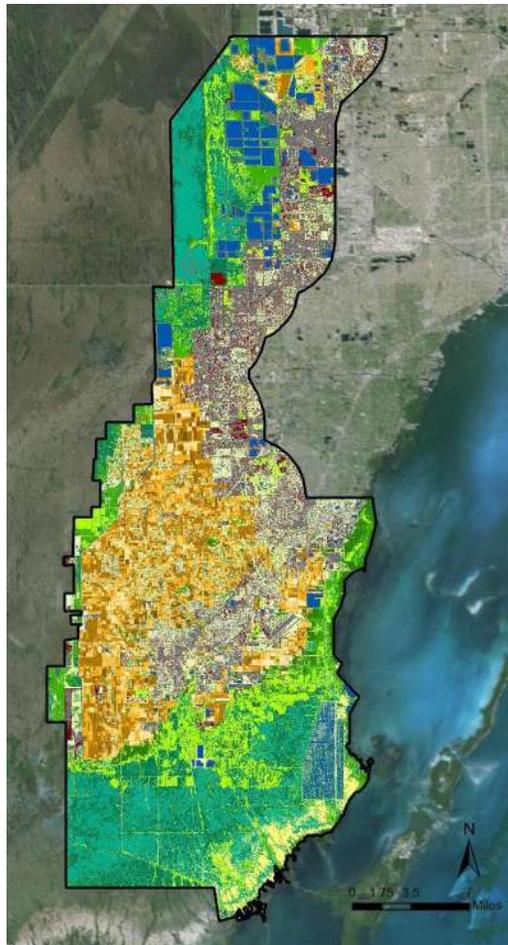
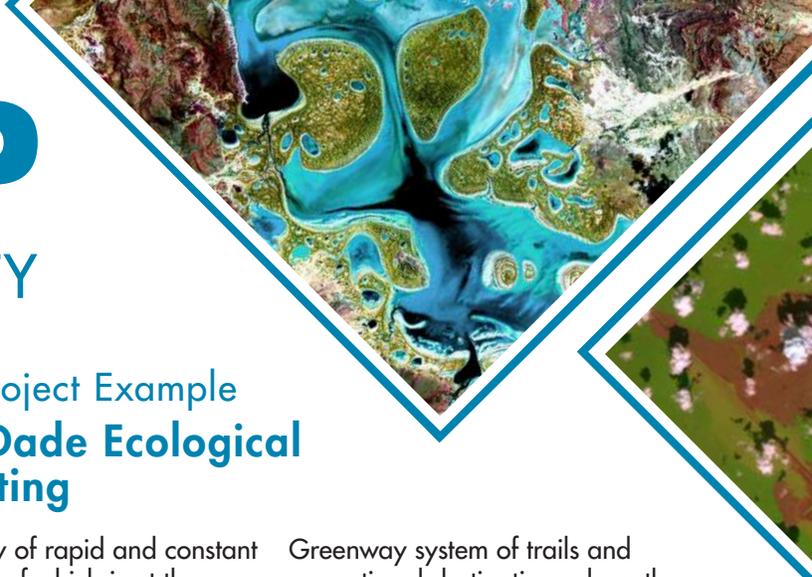
Term Dates: September 12, 2016 - November 18, 2016

Applications Accepted Online: May 23, 2016 - July 1, 2016



# DEVELOP

SCIENCE SERVING SOCIETY



- |   |  |
|---|--|
| <span style="color: brown;">■</span> Agriculture (Very Dense)   | <span style="color: lightgreen;">■</span> Pasture/Grass          |
| <span style="color: orange;">■</span> Agriculture (Dense)       | <span style="color: teal;">■</span> Wetlands (Wet Prairie)       |
| <span style="color: yellow;">■</span> Agriculture (Moderate)    | <span style="color: darkgreen;">■</span> Wetlands (Glades Marsh) |
| <span style="color: lightyellow;">■</span> Agriculture (Sparse) | <span style="color: yellow;">■</span> Sand                       |
| <span style="color: green;">■</span> Very Dense Vegetation      | <span style="color: red;">■</span> Barren                        |
| <span style="color: darkgreen;">■</span> Dense Vegetation       | <span style="color: grey;">■</span> Impervious                   |
| <span style="color: limegreen;">■</span> Shrubs                 | <span style="color: blue;">■</span> Water                        |

## Recent Project Example Miami-Dade Ecological Forecasting

Miami is a city of rapid and constant change, some of which is at the expense of its neighboring wetland area, the Everglades. As the largest subtropical ecosystem in the United States, the Everglades are located along avian migratory routes and are home to many endemic plant and animal species. The protection and restoration of this region is critical, not only for ecological reasons, but also for the protection of water recharge resources for future urban water consumption by the 2.5 million residents of Miami-Dade County. The Miami-Dade County Parks, Recreation and Open Spaces Department has embarked on an ambitious planning effort, in partnership with The Trust for Public Land, to develop a Western

Greenway system of trails and recreational destinations along the county's western edge. To assist with Greenway planning efforts, DEVELOP used NASA satellite imagery to derive a vegetation index and a land cover classification map which not only served as model inputs, but also provided tree cover parameters to support specific design and greenway alignment. The results identified the most suitable land for recreation, conservation, and agritourism, with a particular focus on the southern segment, where the majority of agricultural lands were located. This project contributed to decision support tools for planning green infrastructure corridors to preserve the Everglades.

*"The NASA DEVELOP team provided valuable analysis, data, mapping, and field work to the Miami-Dade Western Greenway planning project. Their contributions assisted the decision-making process and were used to inform the greenway routing."*

Alissa Turtletaub,  
Miami-Dade County Parks, Recreation and Open Spaces Department

## CURRENT LOCATIONS

Interested? Apply to participate at one of the DEVELOP locations. For more information on eligibility and a full list of locations, visit us online at <http://develop.larc.nasa.gov>.

